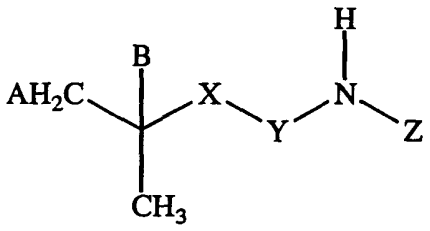
What Is Claimed Is:

1. A method of treating a pathology that is ameliorated by a modulation of CNS activity, comprising administering to a patient suffering from said pathology a compound selected from the group consisting of: isovaleric acid, a pharmaceutically acceptable salt of isovaleric acid, a pharmaceutically acceptable ester of isovaleric acid, a pharmaceutically acceptable amide of isovaleric acid, and a compound having the structure:



wherein A = H, CH_3 or OH,
B = H, OH, or CH_3,
X = CH_2, $CHCH_3$, $C(CH_3)_2$, -O-, CH(OH)-, or $-CH_2O-$,
Y = -CO-, or $-SO_2-$, and
Z = H, CH_2CO_2H, or CH_2CONH_2,

and wherein said compound is selected from the group consisting of 2-methylisovaleramide, 3-methylisovaleramide, 2,2-dimethylisovaleramide, 2,3-dimethylisovaleramide, 4-methylisovaleramide, 2,4-dimethylisovaleramide, 3,4-dimethylisovaleramide, 2,2,4-trimethylisovaleramide, 3-hydroxyisovaleramide, 4-hydroxyisovaleramide, 4-hydroxy-3-methyl-isovaleramide, 2-hydroxyisovaleramide, N-(2-acetamido)isovaleramide, 2-methyl-1-propyl sulfonamide, 1-methylethyl sulfamate, 2-methyl-1-propyl sulfamate, isopropyl carbamate, and isobutylcarbamate, with the proviso that the treated pathology is not convulsions when the compound is 3-methylisovaleramide, isopropyl carbamate, or isobutyl carbamate.

2. A method according to claim 1, wherein said pathology is convulsions.

3. A method according to claim 1, wherein said pathology is spasticity.

4. A method according to claim 1, wherein said pathology is an affective mood disorder.

5. A method according to claim 1, wherein said pathology is a neuropathic pain syndrome.

6. A method according to claim 1, wherein said pathology is headache.

7. A method according to claim 1, wherein said pathology is restlessness syndrome.

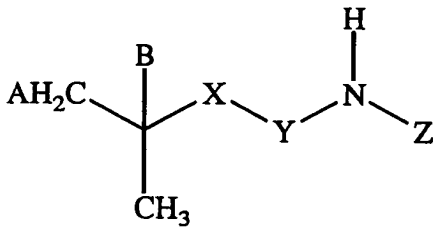
8. A method according to claim 1, wherein said pathology is a movement disorder.

9. A method according to claim 1, wherein said pathology is substance abuse/craving.

10. A method according to claim 1, wherein said compound is isovaleramide.

11. A method of providing neuroprotection to a patient suffering from a cerebral insult, comprising administering to said patient a therapeutically effective amount of a compound selected from the group consisting of isovaleric

acid, a pharmaceutically acceptable salt of isovaleric acid, a pharmaceutically acceptable ester of isovaleric acid, a pharmaceutically acceptable amide of isovaleric acid, and a compound having the structure:



wherein A = H, CH_3 or OH,
B = H, OH, or CH_3,
X = CH_2, $CHCH_3$, $C(CH_3)_2$, -O-, CH(OH)-, or $-CH_2O-$,
Y = -CO-, or $-SO_2-$, and
Z = H, CH_2CO_2H, or CH_2CONH_2

and wherein said compound is selected from the group consisting of 2-methyl isovaleramide, 3-methylisovaleramide, 2,2-dimethylisovaleramide, 2,3-dimethylisovaleramide, 4-methylisovaleramide, 2,4-dimethylisovaleramide, 3,4-dimethylisovaleramide, 2,2,4-trimethylisovaleramide, 3-hydroxyisovaleramide, 4-hydroxyisovaleramide, 4-hydroxy-3-methyl-isovaleramide, 2-hydroxyisovaleramide, N-(2-acetamido)isovaleramide, 2-methyl-1-propyl sulfonamide, 1-methylethyl sulfamate, 2-methyl-1-propyl sulfamate, isopropyl carbamate, and isobutylcarbamate.

12. A method according to claim 11, wherein said compound is isovaleramide.

13. A method of treating a pathology that is ameliorated by a modulation of CNS activity, comprising administering to a patient suffering from said pathology an extract of Valerianaceae, cramp bark, black haw, or hops, wherein said extract

comprises at least one compound that is hydrolyzed *in vivo* to yield isovaleric acid or isovaleramide.

14. A method according to claim 13, wherein said pathology is spasticity.

15. A method according to claim 1, wherein said compound is 2-methyl isovaleramide.

16. A method according to claim 1, wherein said compound is 3-methylisovaleramide.

17. A method according to claim 1, wherein said compound is, 2,2-dimethylisovaleramide.

18. A method according to claim 1, wherein said compound is 2,3-dimethylisovaleramide.

19. A method according to claim 1, wherein said compound is 4-methylisovaleramide.

20. A method according to claim 1, wherein said compound is 2,4-dimethylisovaleramide.

21. A method according to claim 1, wherein said compound is 3,4-dimethylisovaleramide.

22. A method according to claim 1, wherein said compound is 2,2,4-trimethylisovaleramide.

23. A method according to claim 1, wherein said compound is 3-hydroxyisovaleramide.

24. A method according to claim 1, wherein said compound is 4-hydroxyisovaleramide.

25. A method according to claim 1, wherein said compound is 4-hydroxy-3-methyl-isovaleramide.

26. A method according to claim 1, wherein said compound is 2-hydroxyisovaleramide.

27. A method according to claim 1, wherein said compound is N-(2-acetamido)isovaleramide.

28. A method according to claim 1, wherein said compound is 2-methyl-1-propyl sulfonamide.

29. A method according to claim 1, wherein said compound is 1-methylethyl sulfamate.

30. A method according to claim 1, wherein said compound is 2-methyl-1-propyl sulfamate.

31. A method according to claim 1, wherein said compound is, isopropyl carbamate.

32. A method according to claim 1, wherein said compound is isobutylcarbamate